

Remarks

Claims 1 and 13 have been amended. No claims have been added or cancelled in this paper. Accordingly, claims 1-15 remain in the application. Reconsideration and allowance of these claims as now presented is respectfully requested.

Rejection of Claims Under 35 U.S.C. §102

Claims 1-15 stand rejected under 35 U.S.C. §102(a) as being anticipated by the United Kingdom Accreditation Service publication entitled "Calibration of Weighing Machines" (hereinafter "UKAS"). The UKAS publication is generally directed to calibration considerations useful in the calibration of weighing machines. The particular calibration procedure discussed in UKAS utilizes tests of a specific load on the weighing device, with the indications made by the weighing device of such loads being compared to the actual known weight of the test load.

By contrast, the presently claimed error measurement system provides for determining the weight error displayed by the weighing device at each of a plurality of testing positions, and subsequently summing together each of the displayed weight errors, and comparing the summed error value to a desired tolerance level to determine whether the

weighing device is in need of corrective action, including calibration. The Examiner asserts that §5.5 on page 14 of UKAS describes summing the measured errors into a summed error for a particular weighing device. Applicant respectfully submits that the Examiner's assertion is incorrect, in that §5.5 actually describes a method to assign an approximate uncertainty to the indications made by the weighing machine. As defined in §5.5 of UKAS, the approximate uncertainty may be set by the following equation:

Uncertainty =
largest indication error + certified weight uncertainty

In other words, the approximate uncertainty that may be assigned to each indication made by the weighing machine can be estimated by taking the single largest indication error observed in the testing process, and adding that single error value to the known (certified) uncertainty value of the test load itself. For example, where a test load has a certified uncertainty of $\pm 0.5g$, and the single largest indication error made by the weighing device was 1g, then the approximate uncertainty defined in §5.5 of UKAS would be 1.5g.

The disclosure of §5.5 of UKAS, therefore, is clearly distinguishable, and is in fact irrelevant to the presently

claimed error measurement method. Specifically, the UKAS publication fails to disclose or teach a method of summing distinct errors displayed by a respective weighing device as a result of a plurality of weighing tests into a summed error, which summed error is compared to a desired tolerance level to determine whether a corrective action is needed on the weighing machine. The Examiner asserts that a comparison step is described at §4.3.4 on page 13 of the UKAS. Applicant respectfully submits, however, that the UKAS publication fails to teach or disclose such a comparison step of comparing a summed weight indicating error to a predetermined tolerance level.

The use of a summed indication error from a plurality of distinct weight indications made by a weighing device represents a significant advance in the field of error measurement by enhancing a tester's ability in analyzing the accuracy of a weighing device. The method of the presently claimed invention is succinctly described at page 4 line 27-page 5 line 13. In addition, the presently claimed method further allows a tester to project accuracy of the weighing device at higher weight ranges than those used in the testing procedure. Moreover, the method of the present invention utilizes a sum of the errors technique, whereby offsetting random errors are accounted for while

more precisely identifying systematic errors not detected by commonly-employed single error comparison procedures (see page 12 line 15-page line 4 of the application as originally filed). As described in the above-referenced passages, known testing procedures such as that described in the UKAS publication, fails to offset random errors that may occur during the testing procedure. Further, piecemeal error measurement procedures that are known in the art and described in the UKAS publication fail to precisely identify systematic errors that are indeed detectable by the method of the presently claimed invention.

Applicant wishes to further point out to the Examiner that the statements made on page 3 of the Official Action of August 20, 2003 incorrectly assert that the UKAS publication teaches being leveled, cleaned, and repaired as a result of a summed indication error not falling within a given tolerance level. For example, the cited passage of the UKAS publication at §2.3 on page 4 thereof refers to cleaning the weights, as opposed to cleaning the weighing device, as is presently claimed.

For the foregoing reasons, the presently amended claims are believed to be patentable over the cited prior art, and the rejections under 35 U.S.C. §102 should accordingly be withdrawn. Applicant therefore submits that the claims are allowable on the merits. An early allowance is respectfully solicited.

Respectfully submitted,

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